

20250505 14:06:04

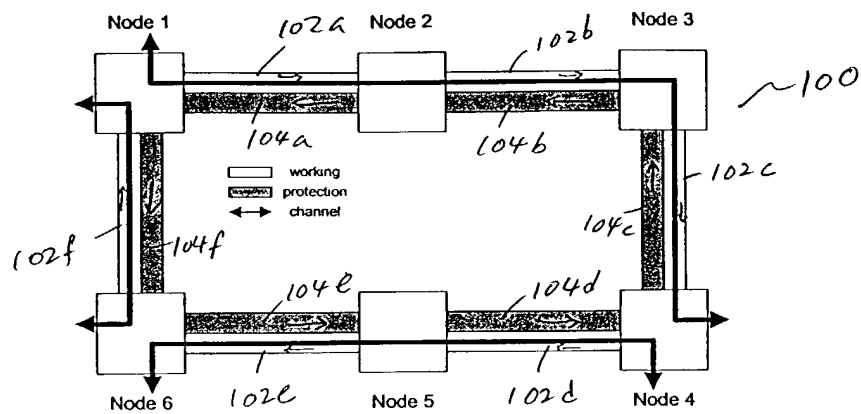


Figure 1: BLSR network in normal mode

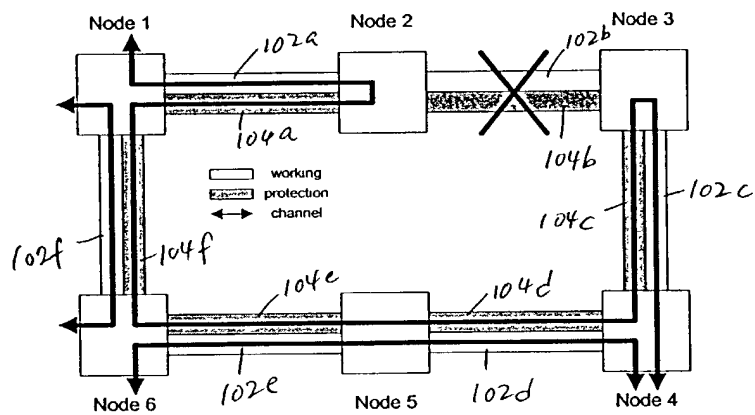


Figure 2: BLSR network in failed mode

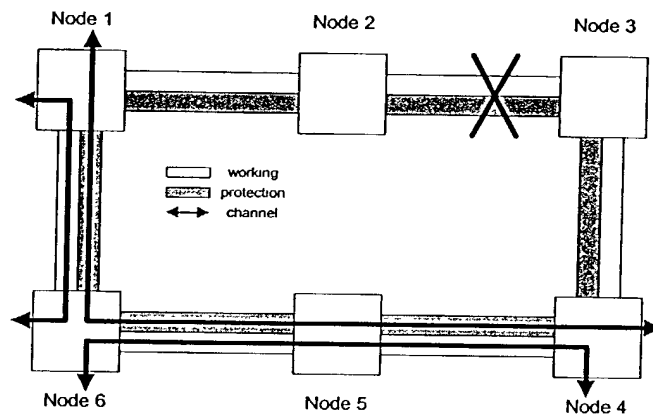
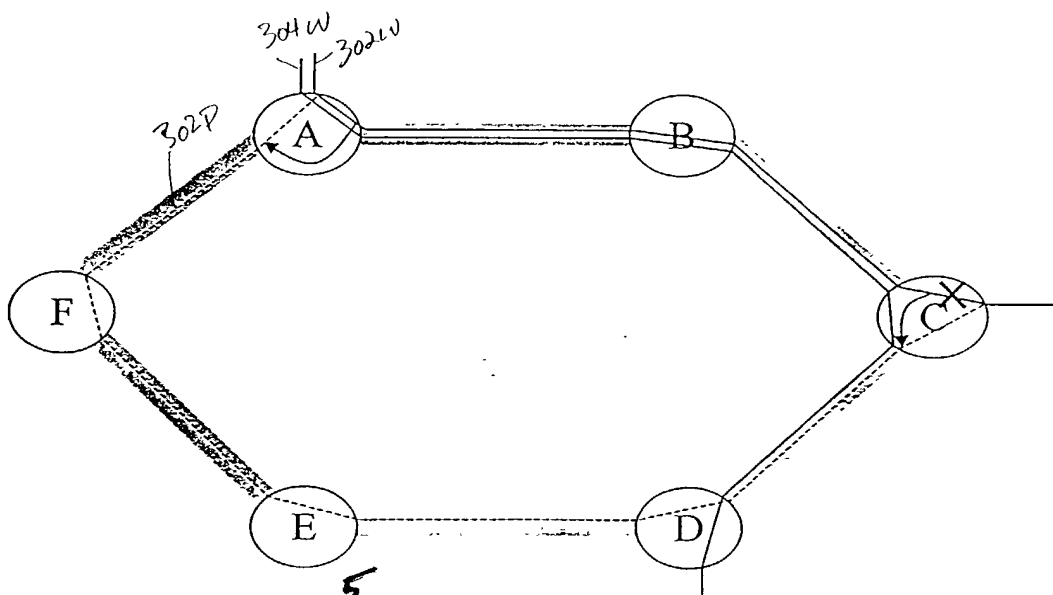


Figure 3: BPSR in failure mode

[illegible]

**Figure 7. Switching failed paths in the case of link failure**



**Figure 4: Switching only the failed path in the case of equipment failure**

10045955-110604

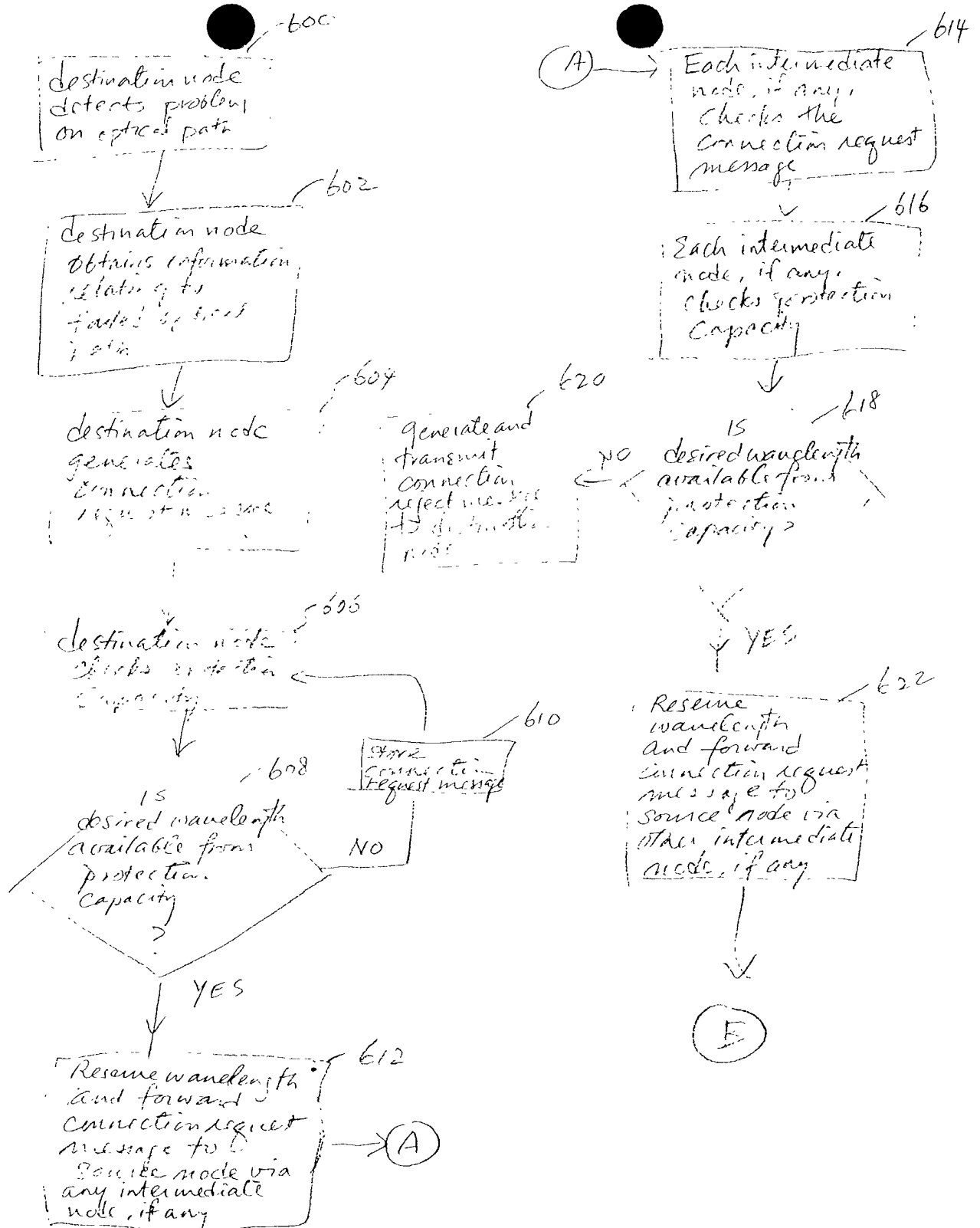
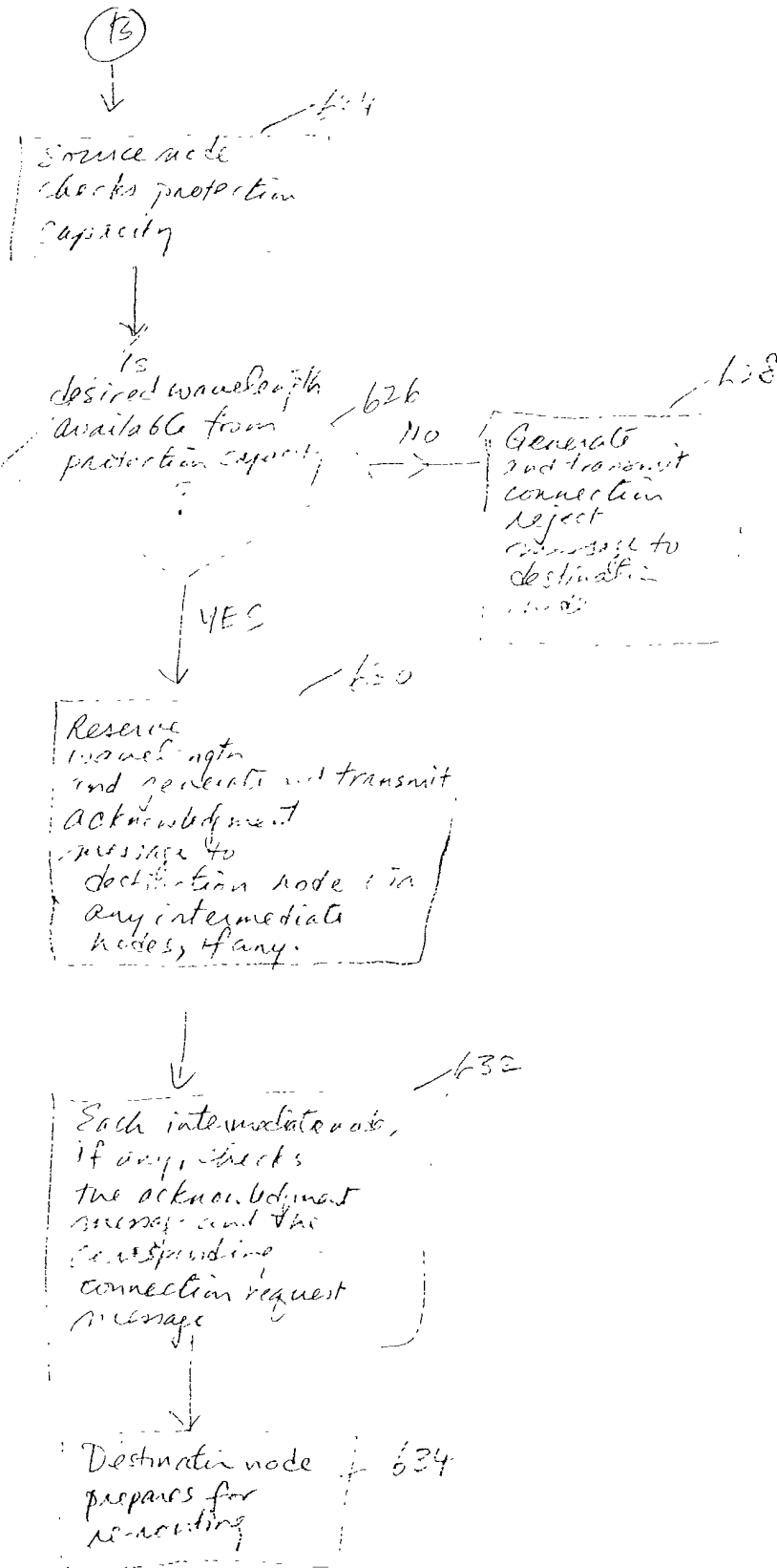


Fig. 6a

10045955 110601





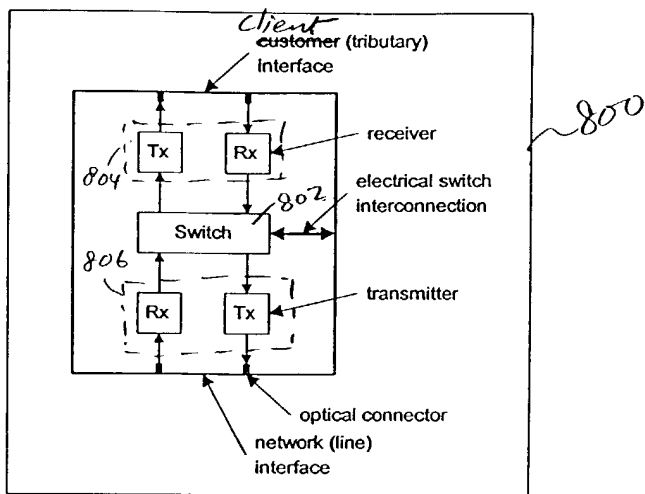


Figure 8

[23] These will be shown in greater detail later.

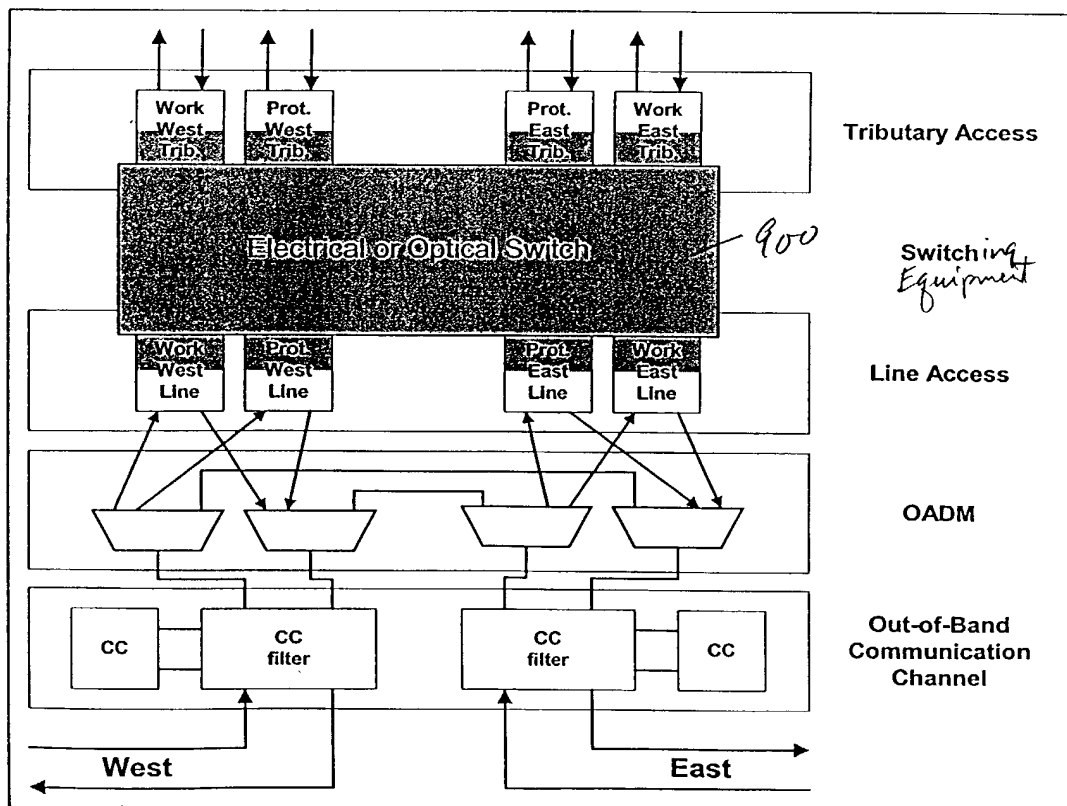


Figure 9

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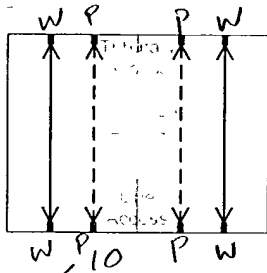


Figure 6: Switch in Normal Mode

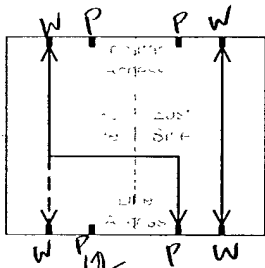


Figure 7: Switch in Ring-Switch East Mode

2004-2005 - 11-11-04



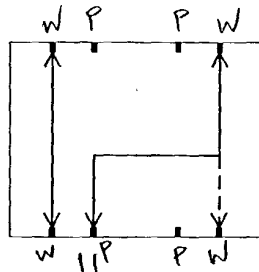


Figure 8: Switch in Ring-Switch West Mode

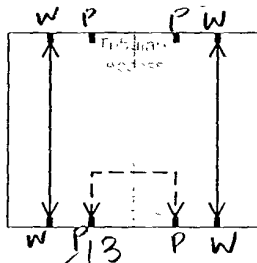


Figure 9: Switch in Bridge Mode

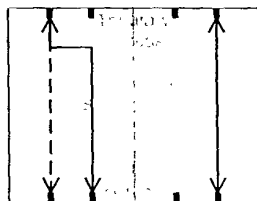


Figure 10: Switch in Span Mode

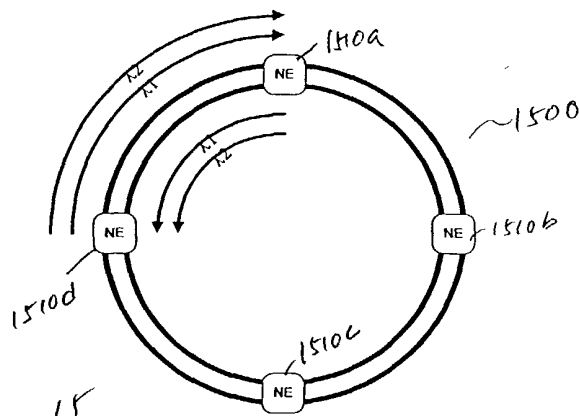


Figure 1: Wavelength assignment for CW and CCW direction

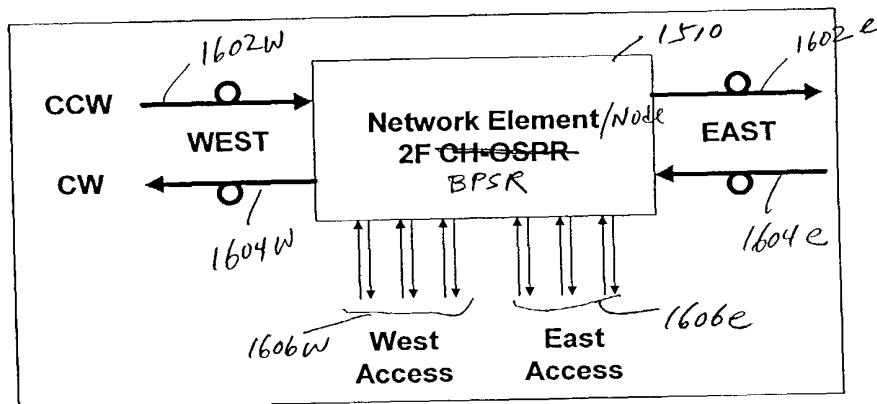


Figure 2: Network Element  
16

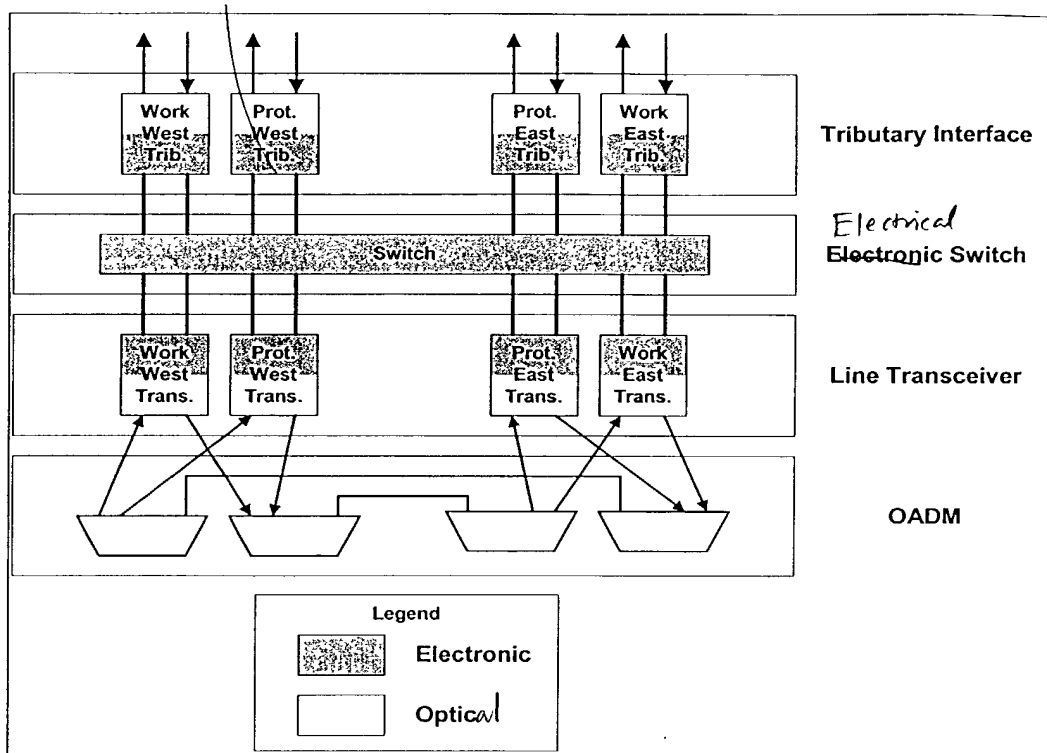


Figure 11: Network Element with Electrical Switch

17

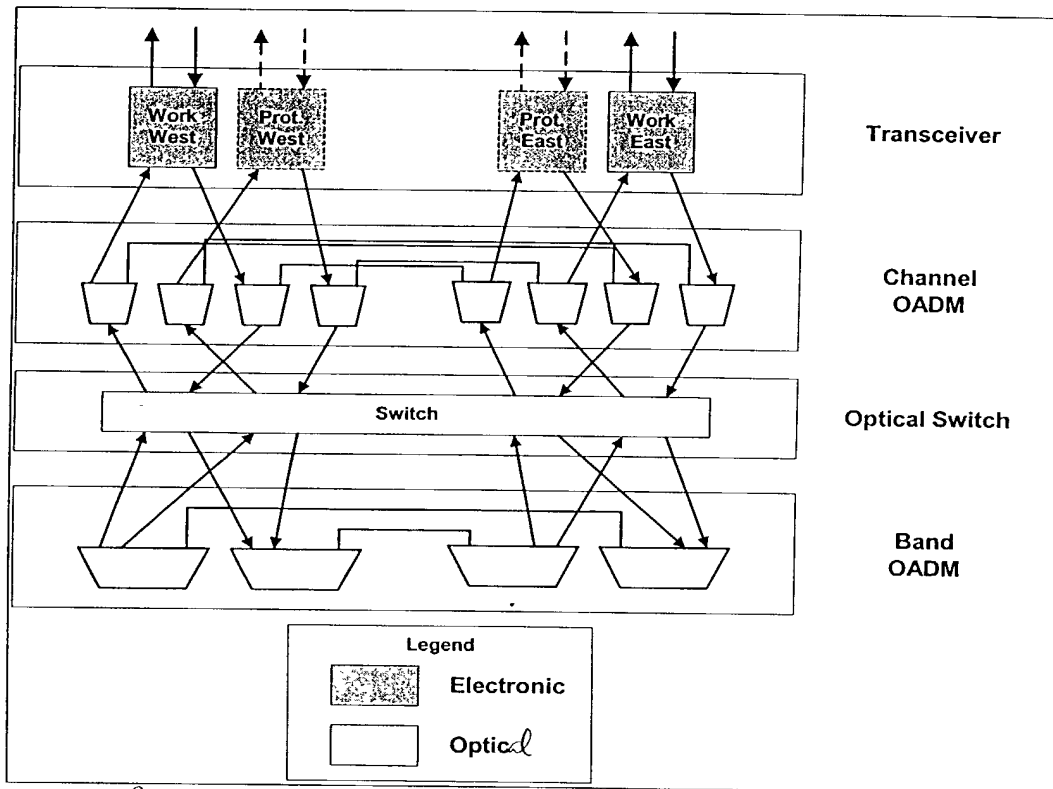
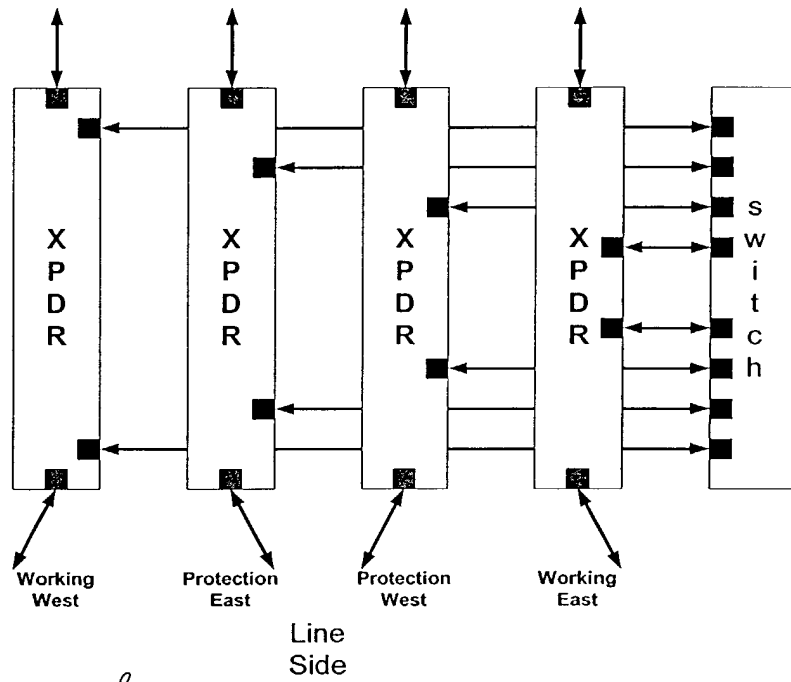


Figure 13: <sup>18</sup> Network Element with an Optical Switch

10045935-40004



19  
Figure 14: Centralized Switching

404595E-10001

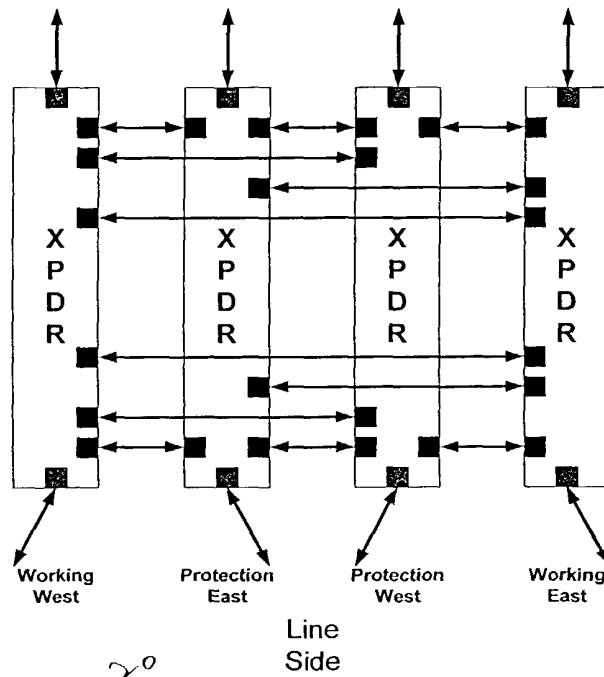
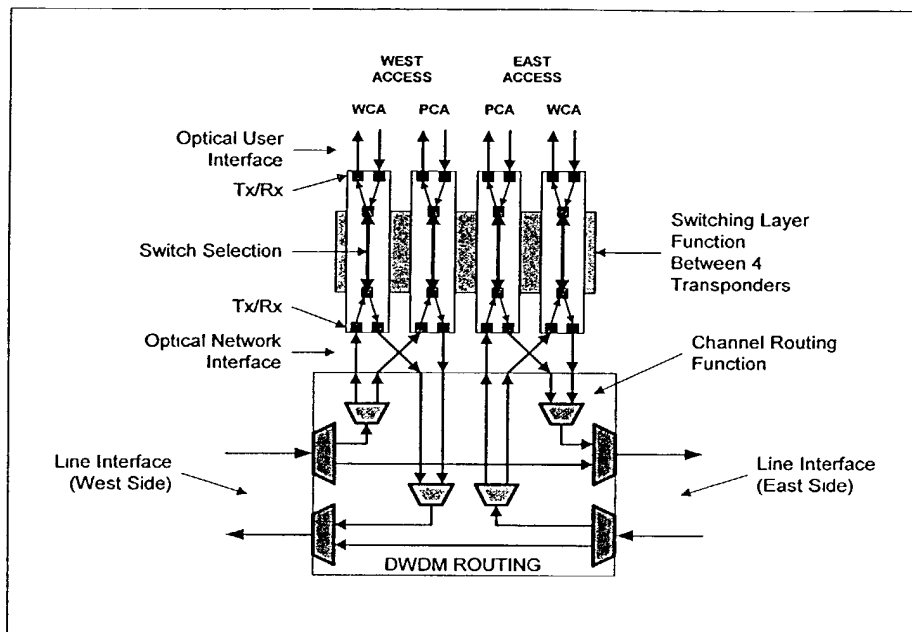
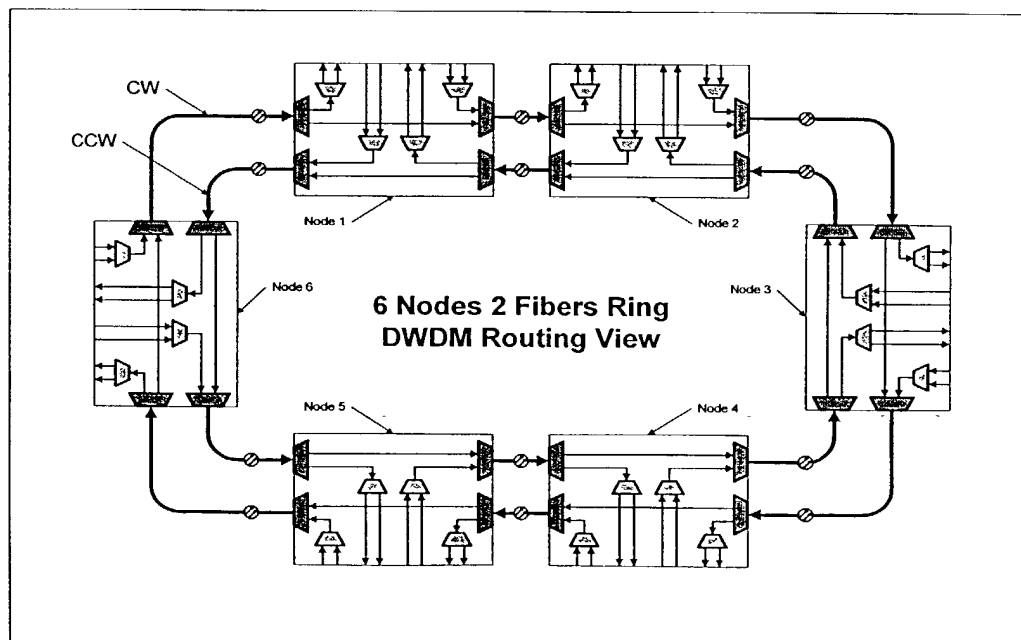


Figure 15: Distributed Switching



21  
Figure 1: Network Element View



22  
Figure 2: 6 nodes ring view

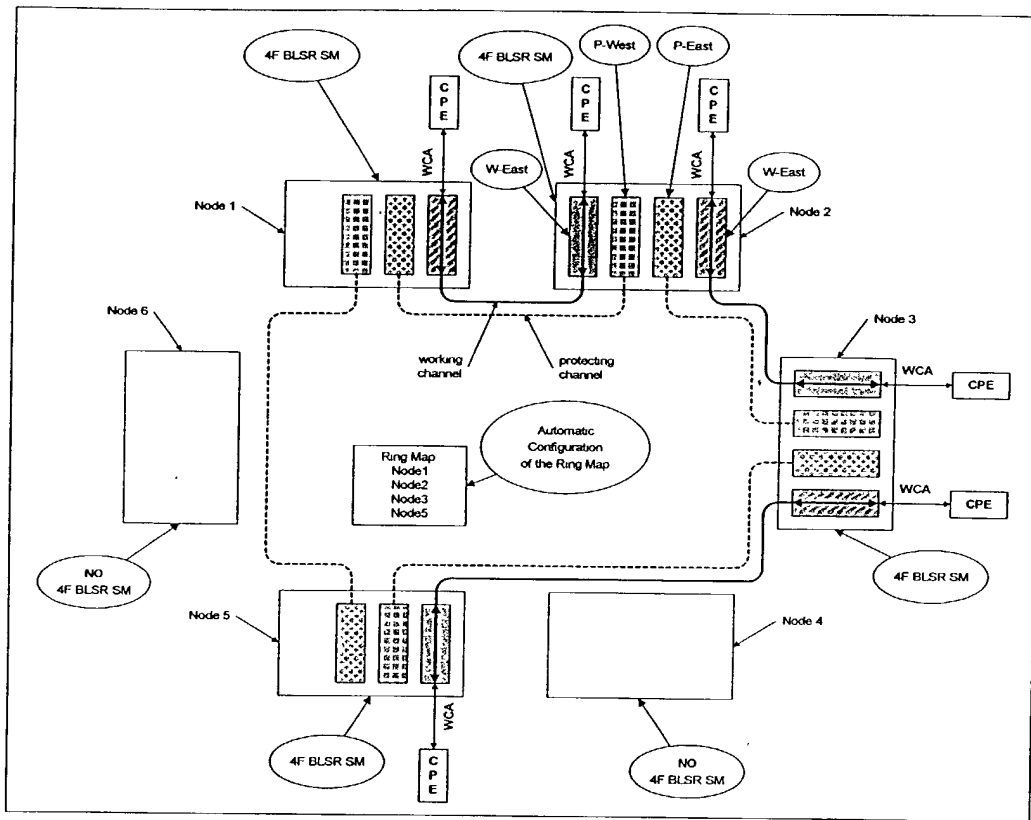
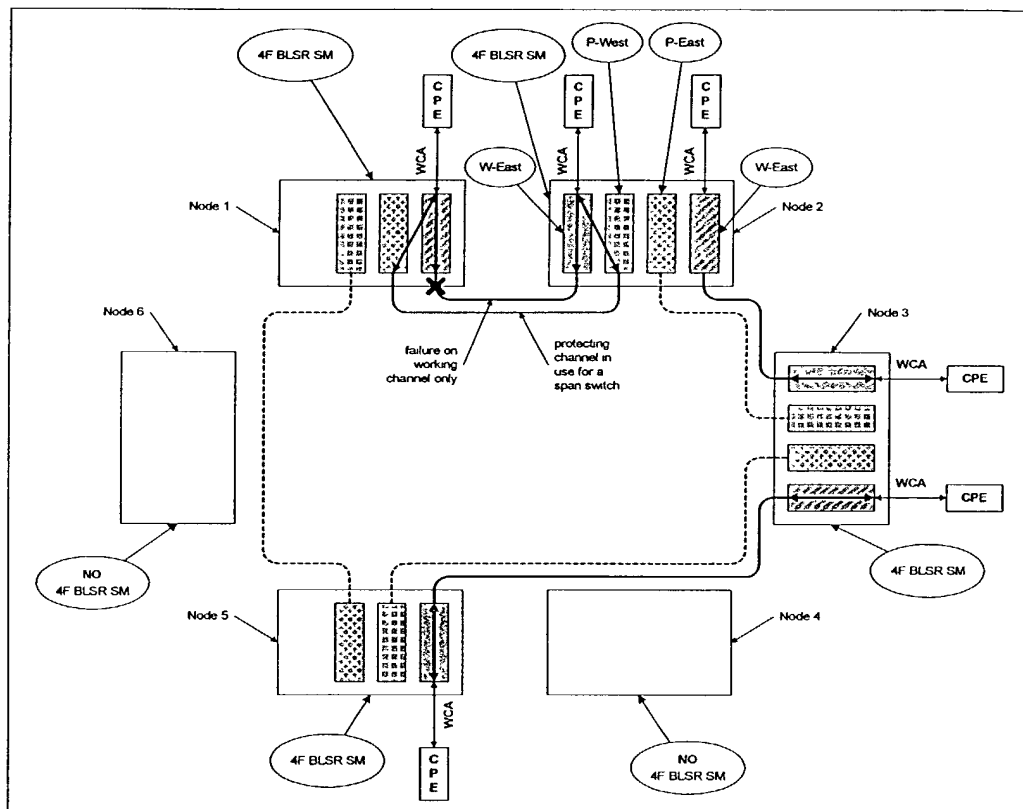
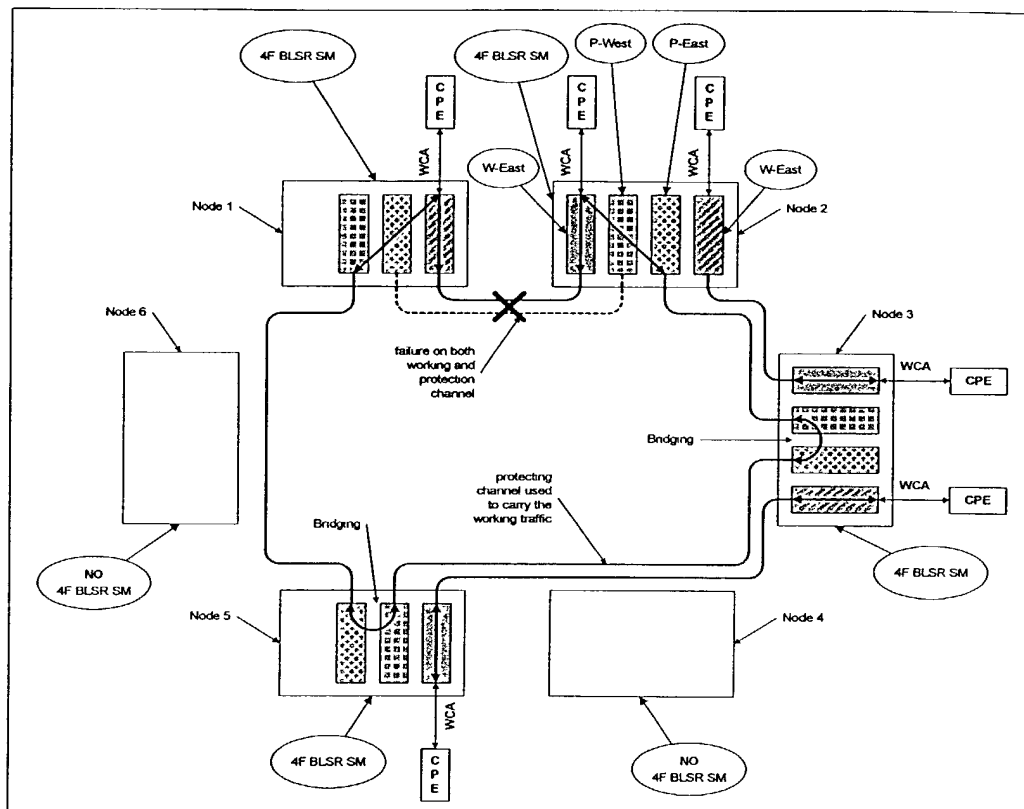


Figure 3: No Failure condition

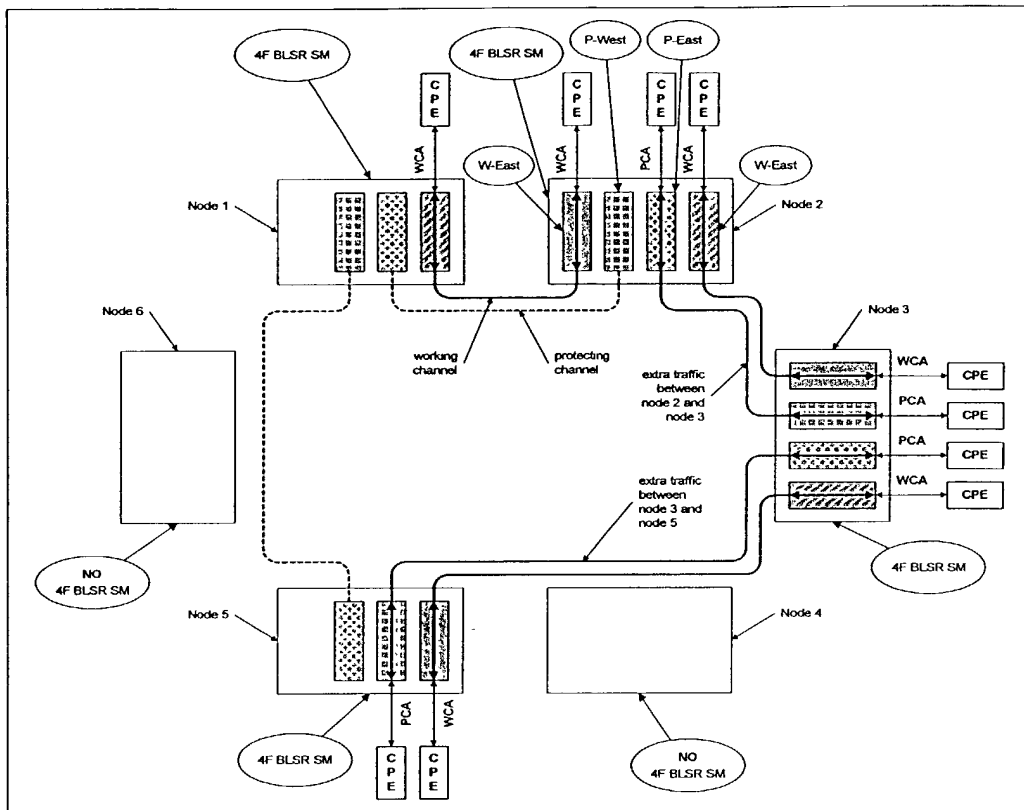




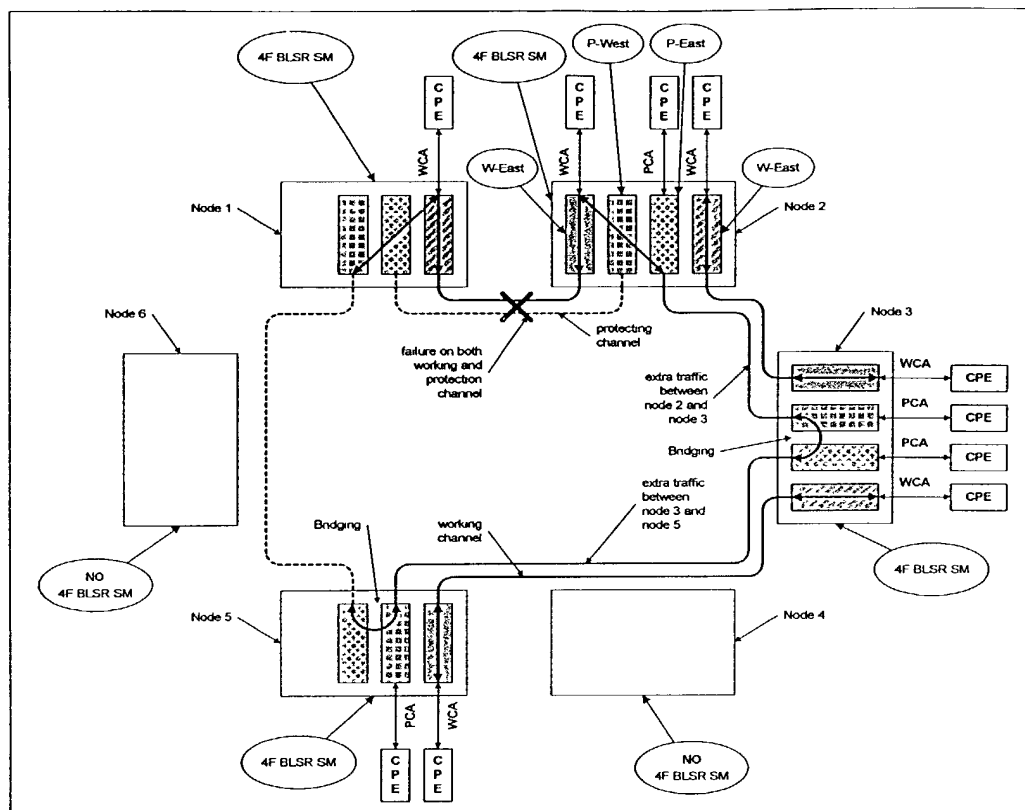
24  
Figure 4: Span switch

[illegible]

**Figure 5: Ring switch**



26  
Figure 6: PCA traffic



27  
Figure 7: Ring switch with PCA traffic present

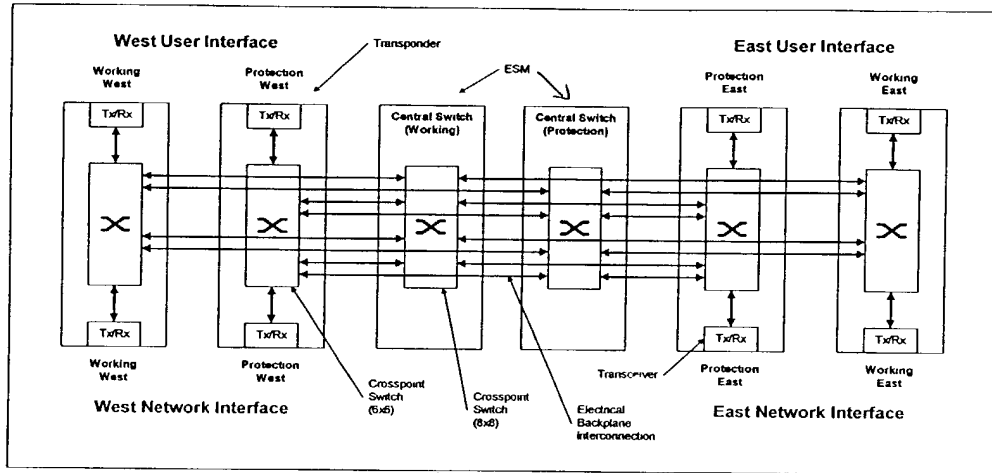


Figure 7: <sup>28</sup>Centralized electrical switch

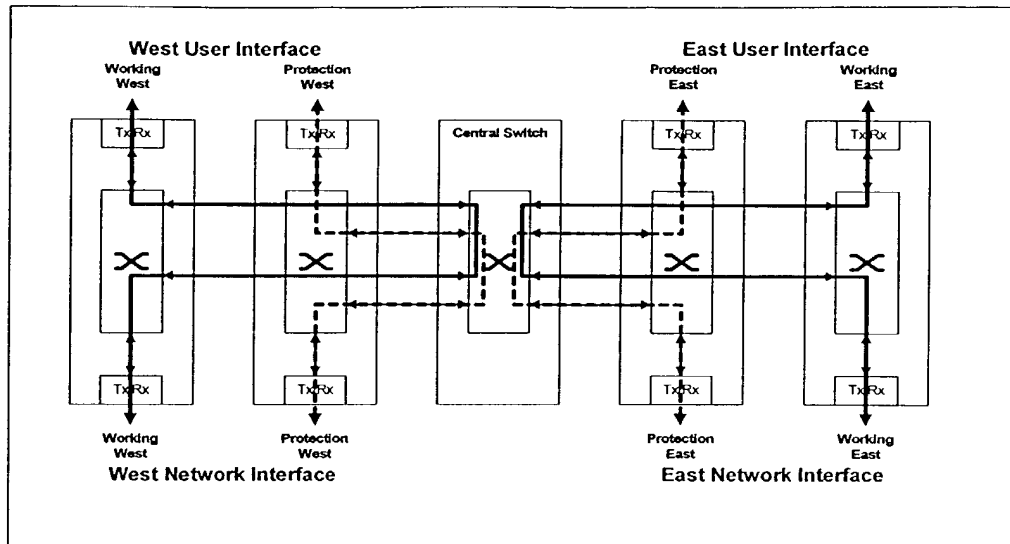


Figure 8: <sup>29</sup> No failure condition

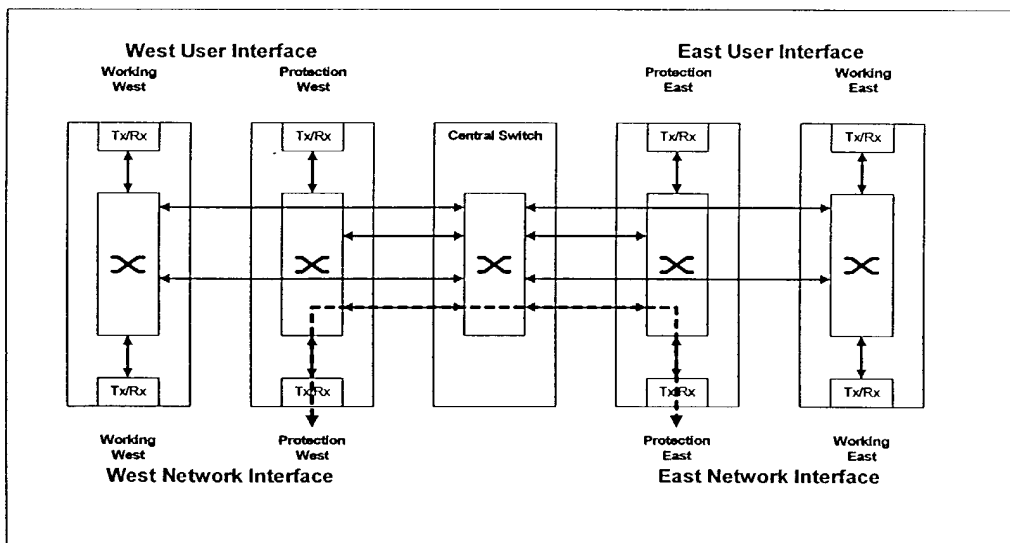


Figure 9: <sup>30</sup> Bridge request on the protection

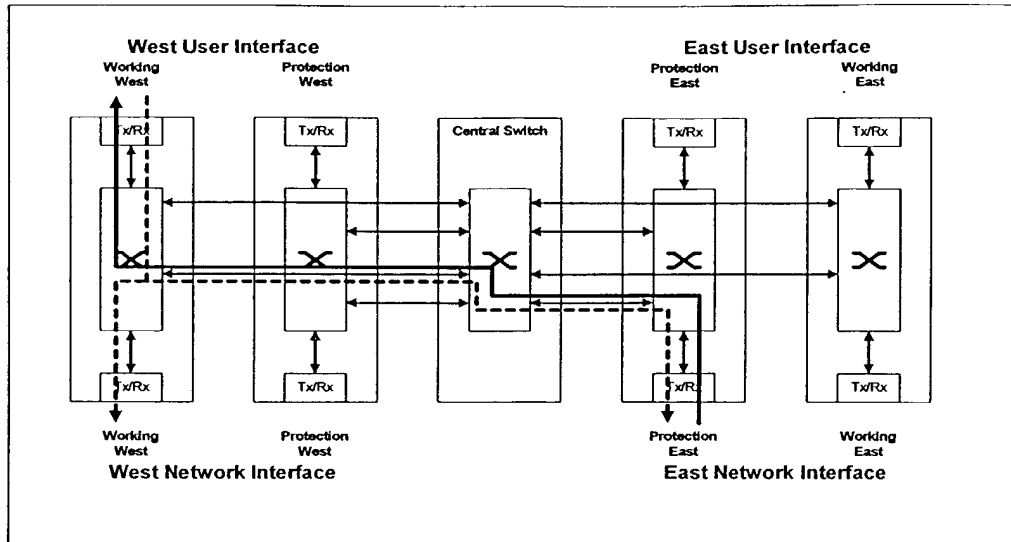


Figure 10: Switch to protection on opposite side

31

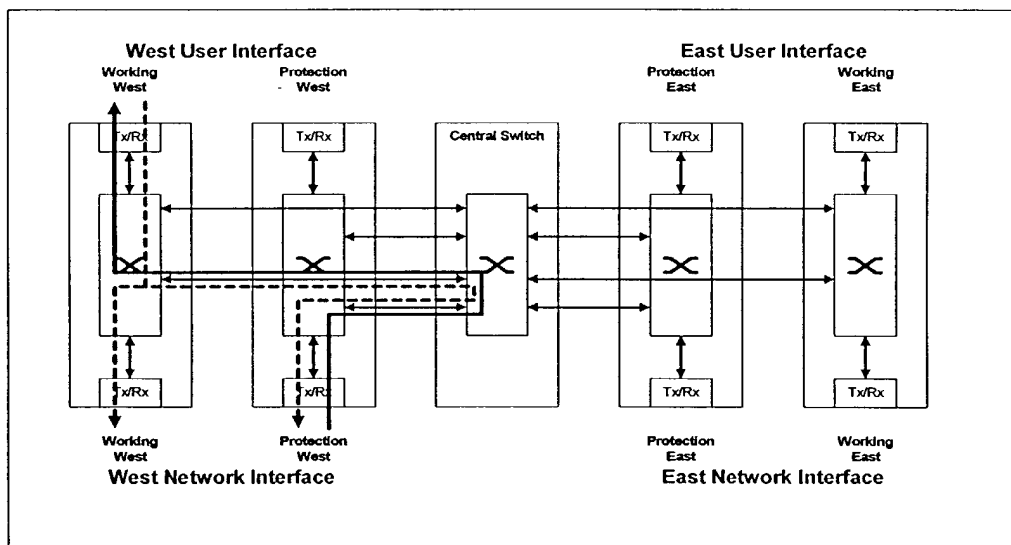


Figure 11: Span switch

32

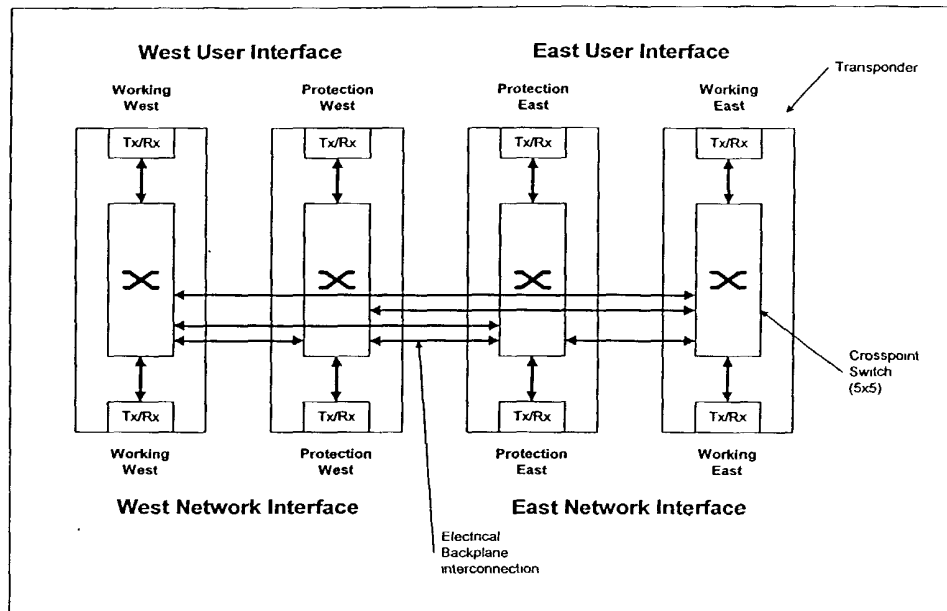


Figure 1: Distributed electrical switch

33

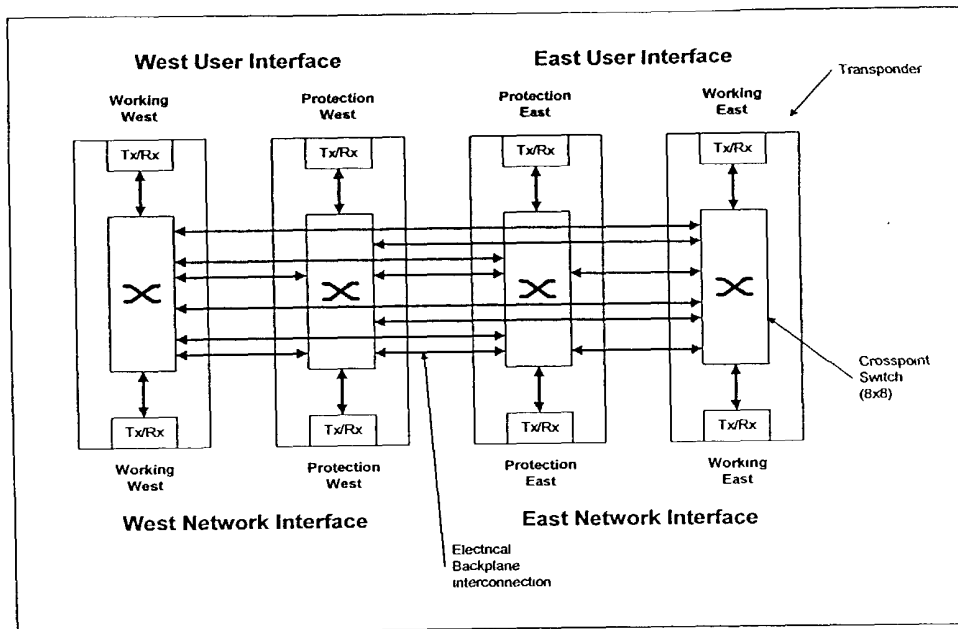


Figure 2: Distributed electrical switch with interconnection redundancy.

34



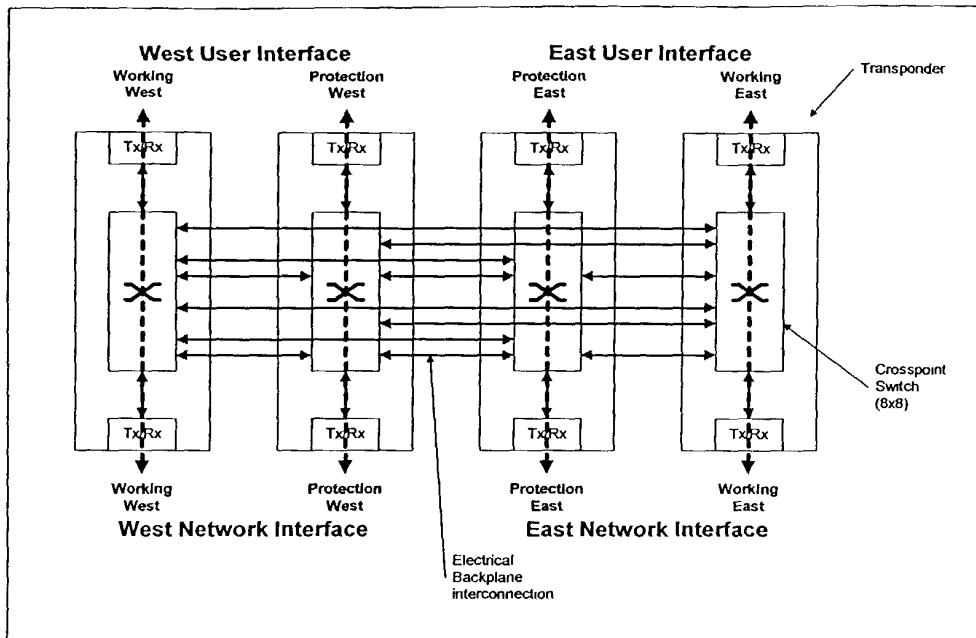


Figure 3: No failure condition

35

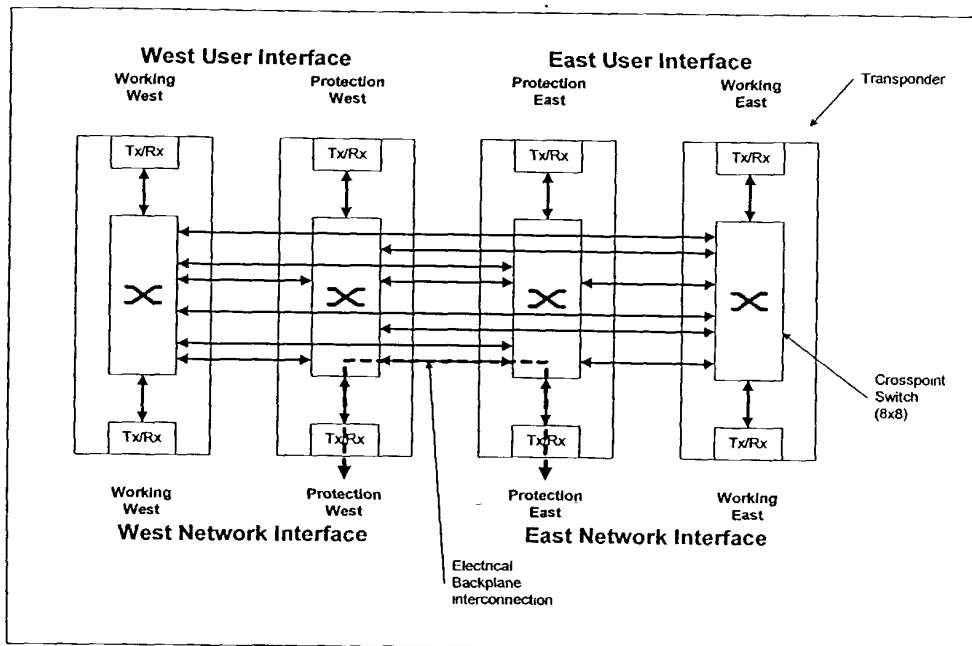


Figure 4: Bridge request on the protection channel

36

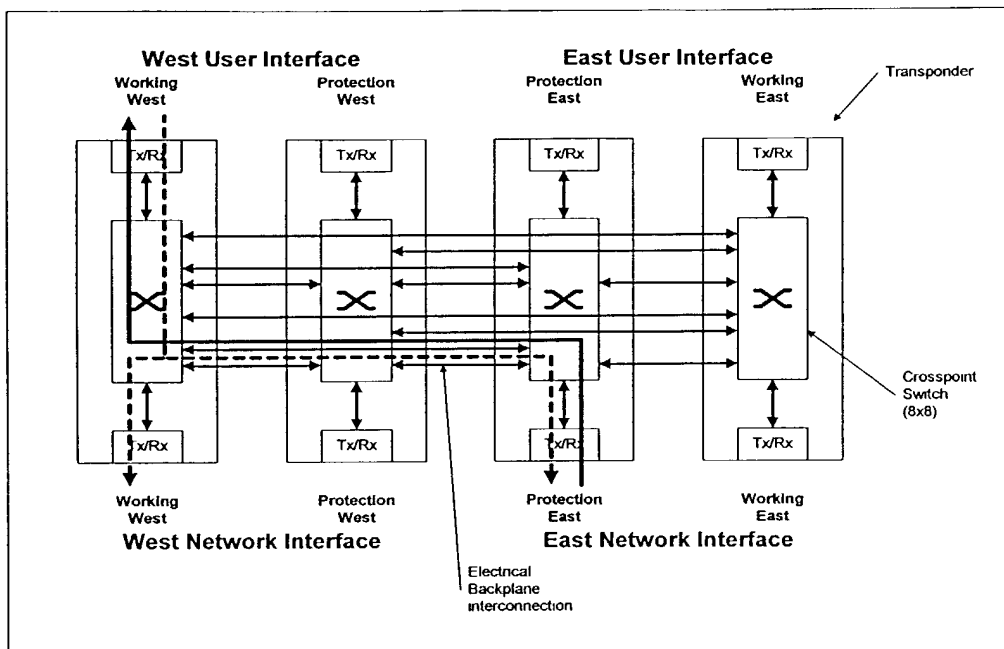


Figure 5: Switch to protection on opposite side

37

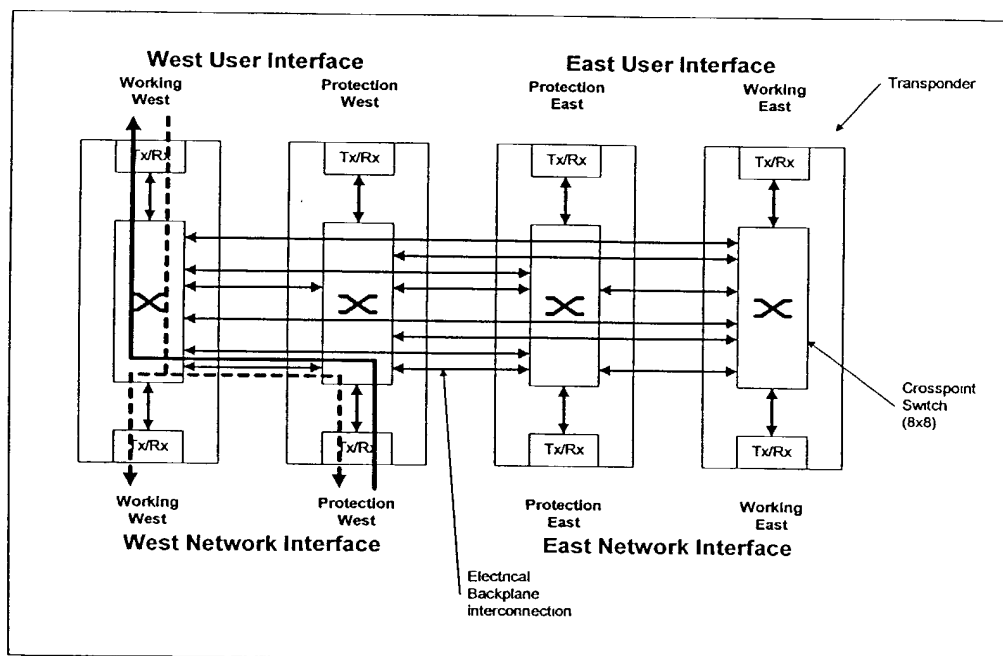


Figure 6: Span switch

38

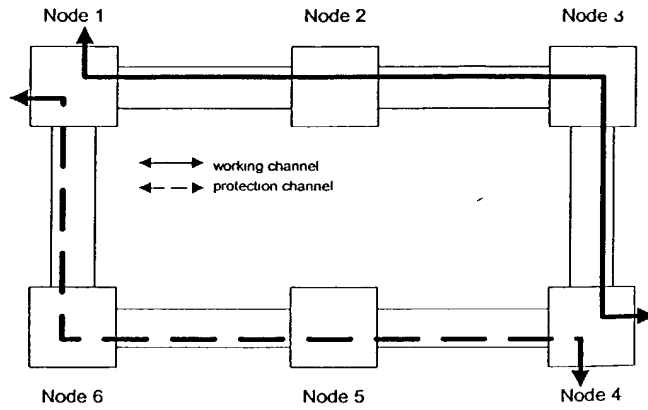


Fig. 39

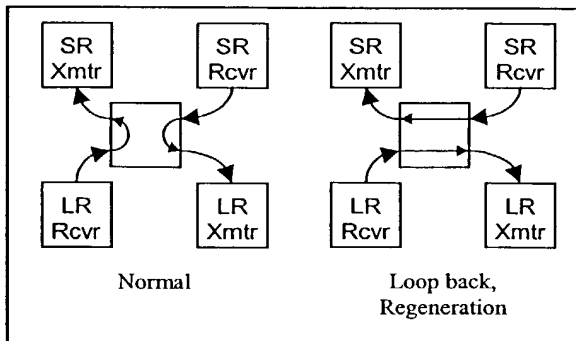
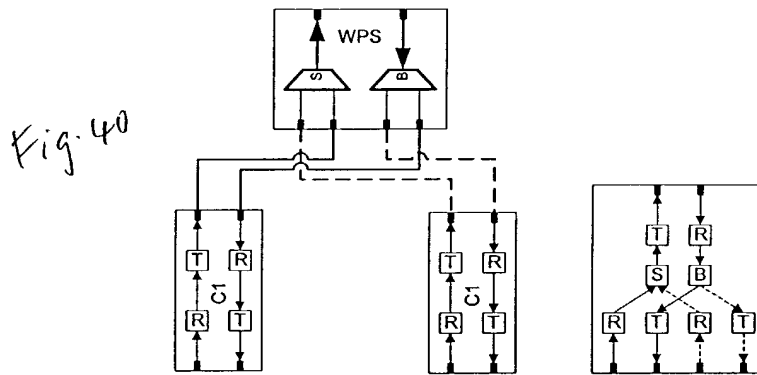
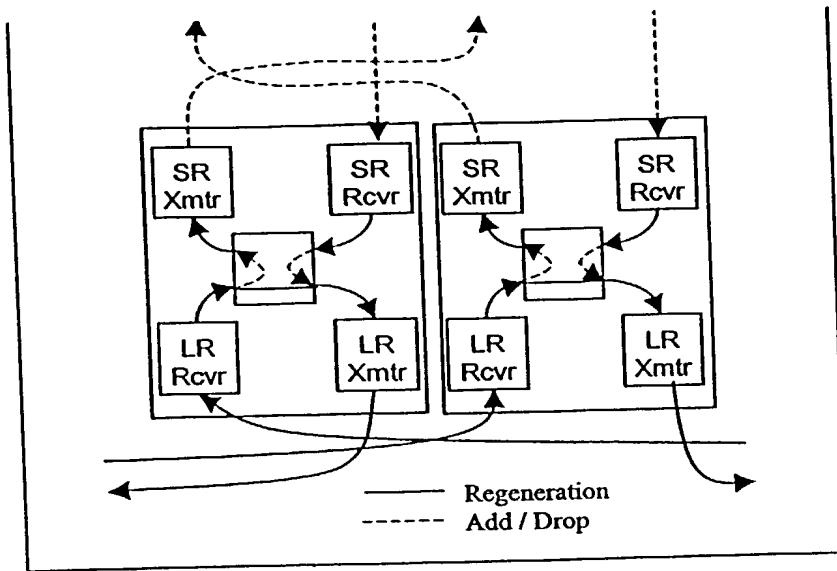
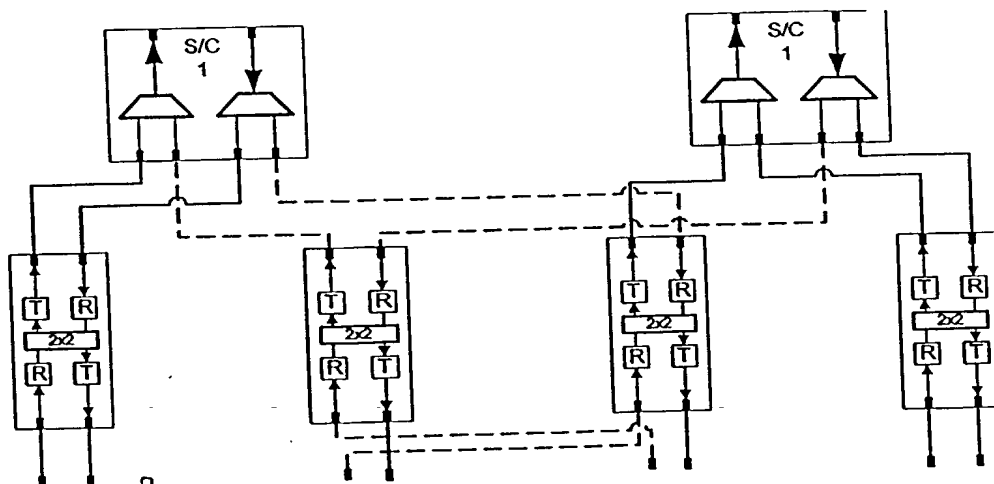


Fig. 41

Electrical Transceiver 2x2 switch



42  
Figure 19: Crossover Add/Drop Regeneration



43  
Figure 20: O-BPSR switch in Normal mode using O-UPSR and Crossover Add/Drop Regeneration

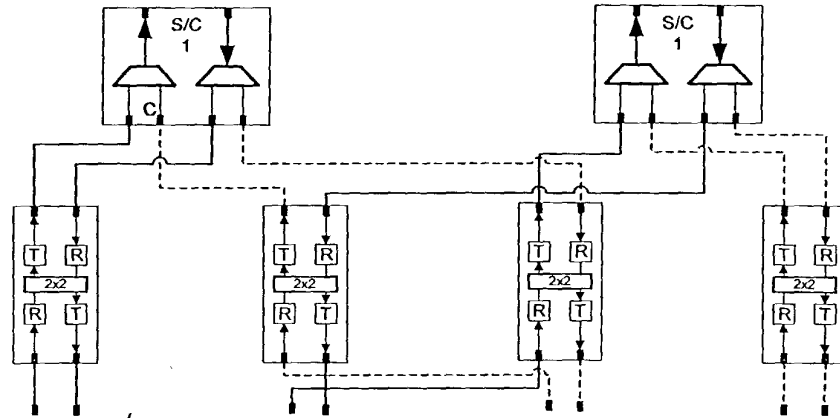
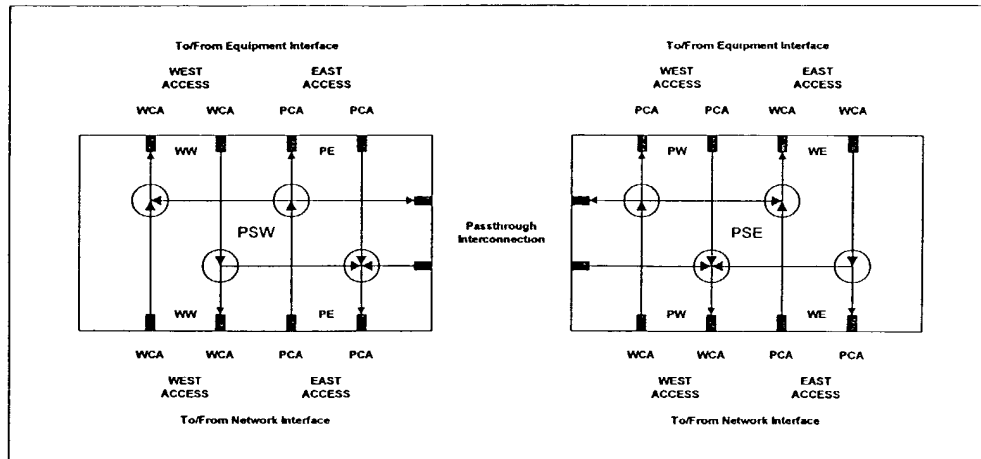
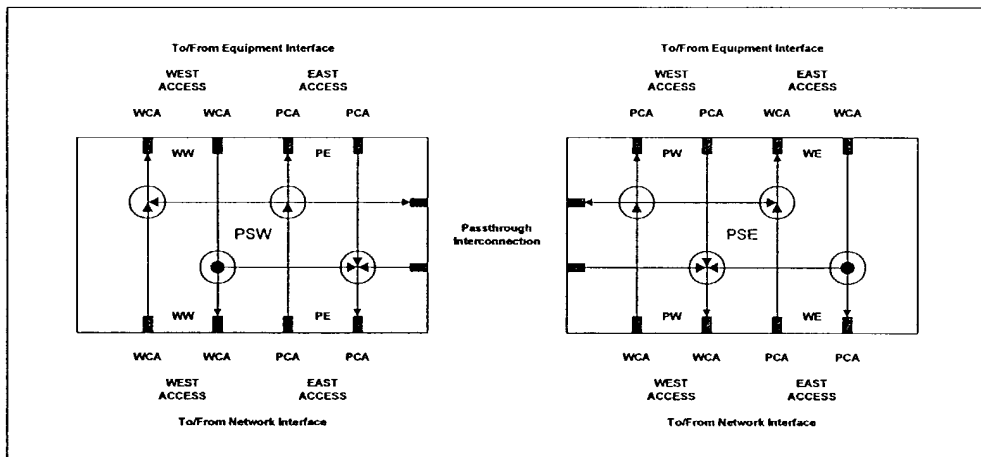


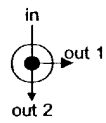
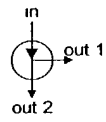
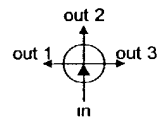
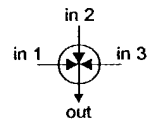
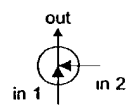
Figure 44: O-BPSR switch in Ring-Switch West mode using O-UPSR and Crossover Add/Drop Regeneration



45  
Figure 7: Protection Switch Module

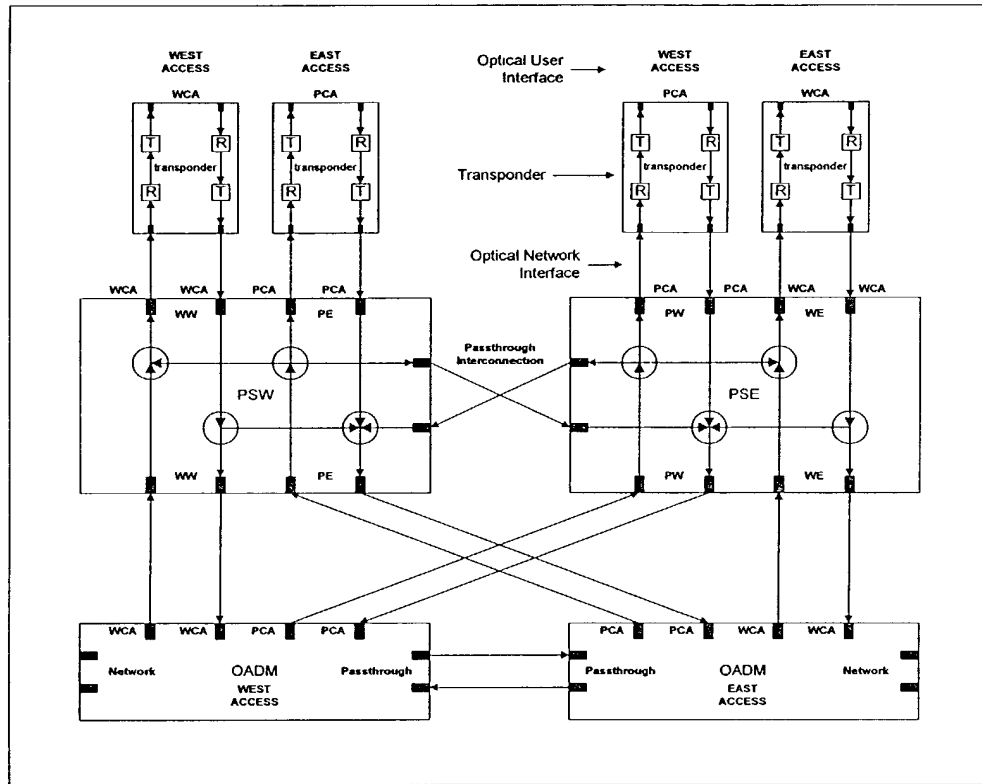


47  
Figure 8: Protection Switch Module with bridging support



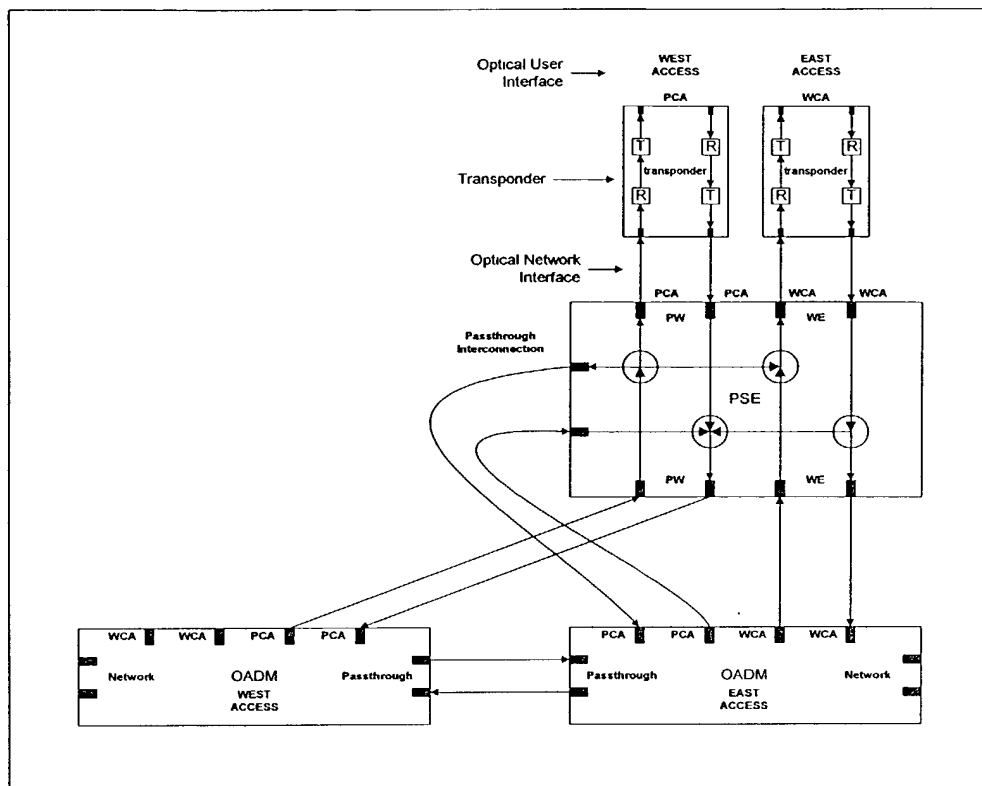
**Figure 6: Switch Legend**

46



48  
Figure 9: Interconnected System





**Figure 10: Interconnection system with working east access**

49

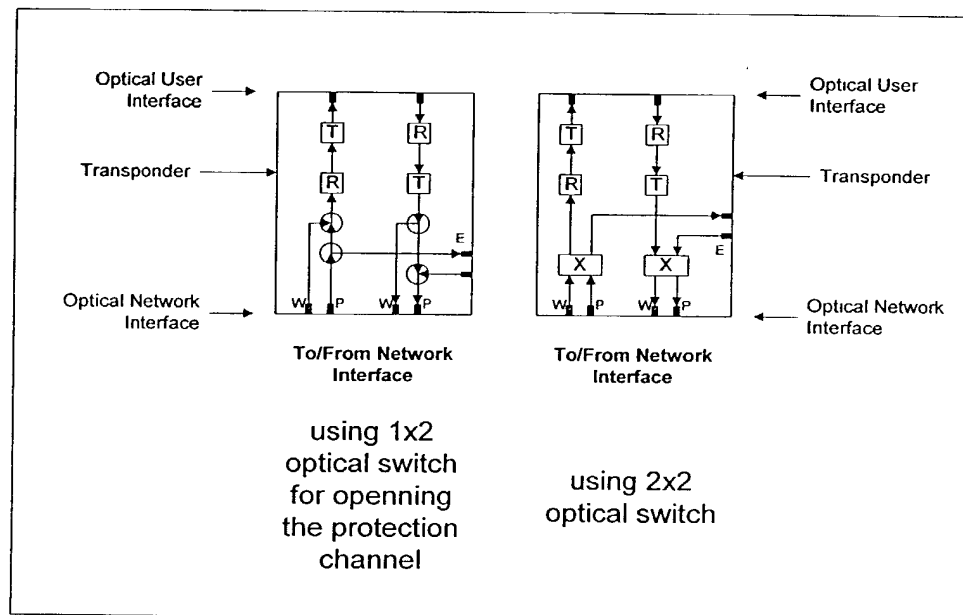


Figure 1: Distribution of the switching function on the transponder

50

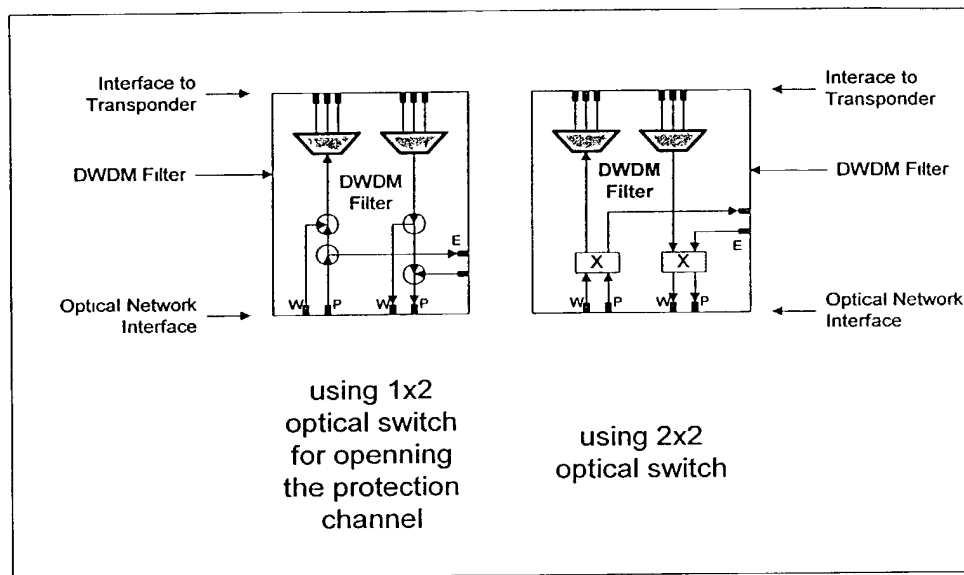
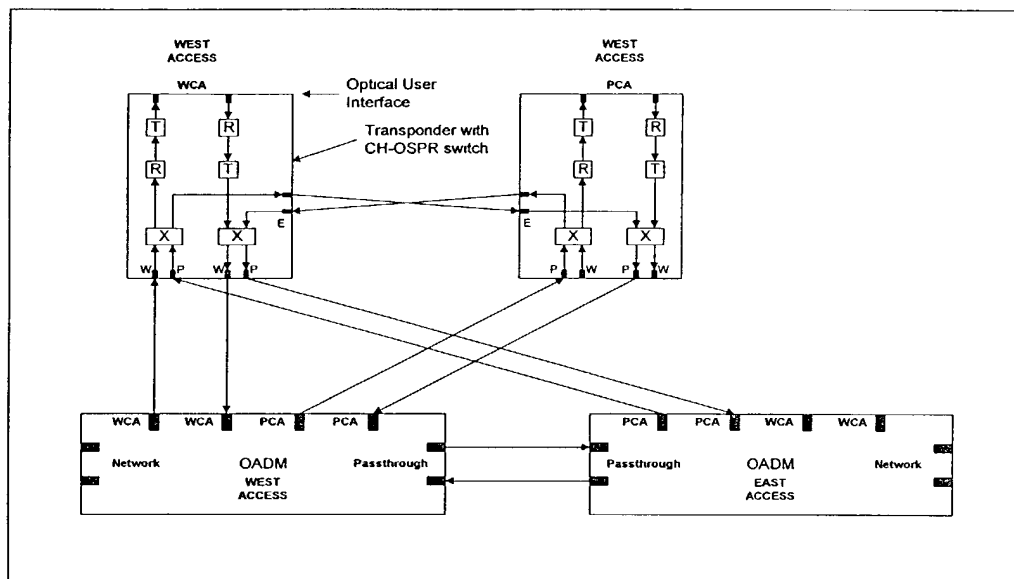


Figure 2: <sup>51</sup> Distribution of the switching function on the DWDM filter





54  
Figure 5: System interconnection with WCA and PCA

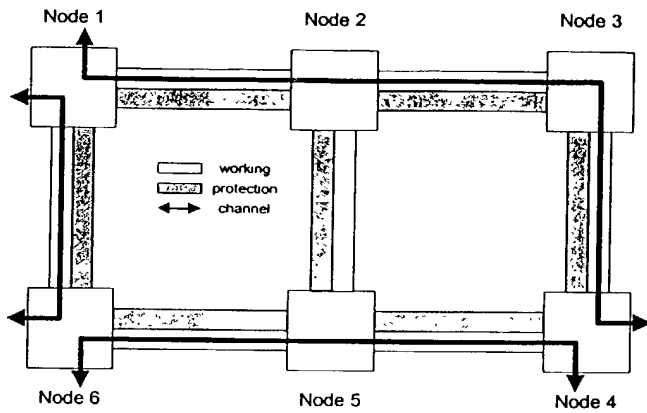


Figure X: Two Interconnected Rings sharing protection bandwidth between N2 & N5.

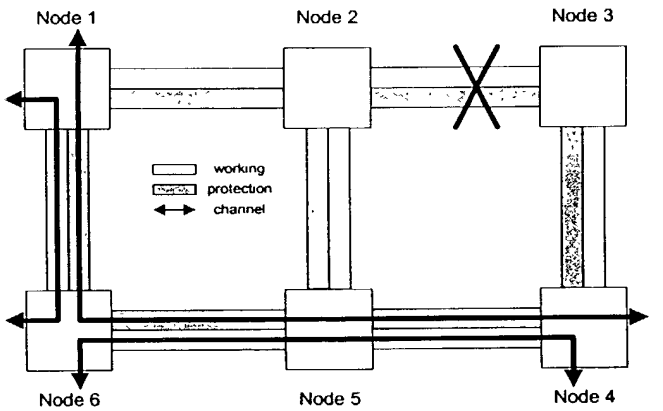


Figure X: Failure between N2 and N3 with rerouting along virtual ring N1-N2-N3-N4-N5-N6

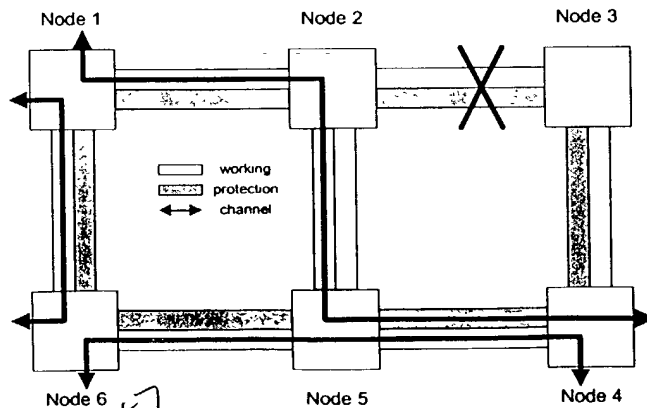


Figure Z: Failure between N2 and N3 with rerouting along virtual ring N2-N3-N4-N5